RCRA FACILITY ASSESSMENT

RFA Scope of Work

Ciba-Geigy Corp. (RID001194323)

I. PURPOSE

The purpose of the RCRA Facility Assessment (RFA) is to identify and gather information about releases at RCRA facilities. Key features include the evaluation of regulated units, solid waste management units, and any other areas of concern for potential/actual release of contaminants to the environment and recommendations for further investigation and interim remedial measures as appropriate.

II. ORGANIZATION

The RFA is comprised of a Preliminary Review (PR), Visual Site Inspection (VSI), and where appropriate, a Sampling Visit (SV).

III. TECHNICAL APPROACH

All three steps of the RFA require the investigator to examine data on a facility and to investigate specific units located at a facility. These data can generally be divided into five categories:

- Unit characteristics;
- Waste characteristics;
- Pollutant migration pathways;
- Evidence of release; and
- Exposure potential

In general, during the PR, the investigator will examine documents and other written materials to obtain information on a facility's location, potential environmental receptors, characteristics of the waste handled at the facility as a whole and managed in Solid Waste Management Units (SWMUs), the design and operating features of the SWMUs themselves, and evidence of past releases. Solid Waste Management Units are any discernible waste management unit at a RCRA facility from which hazardous constituents might migrate regardless of whether the unit was intended to manage solid and/or hazardous waste. This information will assist the investigator to determine which environmental media and migration pathways are of concern. The investigator will supplement this information with additional evidence gathered during the VSI and samples taken during the SV.

Specific factors in each category that must be considered will vary depending on which media are of concern. For example, land-based units are more likely to have ground water releases than aboveground units; surface impoundments are more likely to have air releases than landfills. Certain wastes tend to volatilize and cause air releases, while other wastes are soluble in water and tend to migrate via surface or ground water. A facility's location will help to determine which media are of concern. Surface water releases should not be a concern for facilities that are not located near surface water. Types of evidence and potential receptors will also vary by media.

The RFA is completed when the investigator has sufficient information to make a determination regarding releases or likely releases at a facility and the need for further investigations. Sometimes it will be possible to make this determinition after completing the first two steps (the PR and VSI), and a SV will not be necessary. In other cases, even upon completion of the SV, the investigator may need to perform additional follow-up inspections or collect further sampling or other information from the owner/operator before making this determination.

In general, when the RFA is completed, the investigator will have:

° Identified all potential releases of concern;

° Identify all SWMUs;

° Determine which areas need further investigation and collected sufficient information to focus these investigations;

° Screened out releases that do not require any further investigations; and

° Referred permitted releases to other authorities, as appropriate (i.e., NPDES, TSCA, various state laws, etc.).

Upon completion of the RFA, the investigator shall prepare a report summarizing his/her findings. The report should integrate the findings from all three steps in the RFA and include a description of the facility and its waste management practices, release information for all SWMUs or groups of SWMUs and other areas of concern, sampling plan and result,

and final release determinations and recommendations. This report should clearly indicate those areas of the facility that require further investigation in a Remedial Investigation and should contain information to focus these investigations.

IV. INTERACTION BETWEEN CONTRACTOR AND RCRA PROJECT MANAGER (RPM)

Effective interaction with EPA personnel during the execution of the RFA tasks will expedite successful completion of the assignment within time and budget limitations. The following outline constitutes a general approach to maintaing good communications throughout this assignment.

A. Initial Information Meeting

Contractor meets with RPM to discuss present site status. EPA supplies preliminary information to contractor.

B. Preparation of Workplan

Contractor prepares workplan and submits to RPM for review and approval.

C. Preliminary Review Completed

Contractor submits draft report to RPM for review and schedules discussion meeting with RPM prior to VSI.

D. Visual Site Inspection

Contractor revises PR per RPM comments and schedules VSI with RPM. Sampling program is discussed during VSI.

E. Sampling Visit (SV)

Contractor submits Sampling Plan to RPM for review/ approval and schedules meeting if necessary with RPM and schedules SV. EPA may accompany contractor during SV.

F. Draft Final RFA Report

Contractor submits draft final RFA report to RPM for review and comment and schedules meeting with RPM prior to final report.

G. Final RFA Report

Contractor submits 4 bound and 1 unbound copies of final RFA Report.

The actual time line for completing each RFA will be dependent on project complexity. However, the contractor shall be expected to complete the entire work assignment within four (4) months of acceptance of the assignment.

V. PRELIMINARY REVIEW

Primary purposes are to gather and evaluate existing facility information and to focus activities to be conducted during the Visual Site Inspection and, where needed, the Sampling Visit.

The PR essentially includes document review and relevant personal interviews to ascertain potential/actual releases to all environmental media at the facility:

ground water
surface water
subsurface gas
soils
air

The PR will consider information on the entire facility, and will not be limited to collecting and evaluating information covering the RCRA-regulated areas at the facility. In particular, the investigator will identify and gather

information on SWMUs and other areas where wastes have been managed at the facility.

While the scope of the PR will focus on identifying and evaluating releases resulting from waste management activities, the investigator should consider documents he/she finds which provide information on releases at the facility which may be beyond the scope of the RCRA corrective action authorities. These could include releases subject to investigation and remediation under CERCLA or TSCA authorities.

A. Written Information and Documents

Four basic RCRA file sources and several additional RCRA documents typically contain the most useful information during the PR:

(1) RCRA permit applications;

(2) Facility SWMU response;

(3) RCRA inspection reports;

(4) RCRA exposure information reports;

(5) Additional RCRA sources; and

(6) Other sources.

It is important to note that "additional" RCRA sources can include:

a. Biennial Reports

b. Operating Logs

c. RCRA Waste Manifests

d. Notice to Local Authority

Other sources should include (when available) but are not limited to:

- State/Local task forces and citizen groups (to be coordinated by the RPM);
- NPDES and CAA permits and permit applications;
- CERCLA PA/SI Reports;
- Installation Restoration Programs (IRP) Reports;
- HRS Documentation;
- CERCLA RI/FS Studies;
- CERCLA 103(c) Notifications;
- Aerial Photographs;
- Other Federal/State Agencies; and
- TSCA/OSHA/NPDES Inspections.

The following may also provide some useful information, although they will be needed less often:

- GEMS (Graphical Exposure Modeling System);
- State/Local Well Permit Offices;
- Municipal/County/City Public Health Agencies;
- Local Well Drillers;
- State/County Road Commissions;
- Utilities;
- Local Airports/Weather Bureaus;
- Naturalists/Environmental Organizations;
- Facility Employee;
- Colleges/Universities; and
- Interviews with Local Residents.

It will not be necessary to look at each of these sources in all situations, but they can be examined as appropriate to help fill information gaps, if available. This can be discussed at the initial information meeting.

B. Meeting with Relevant Individuals

Interviews with personnel from state agencies and other EPA program offices should be strongly considered as a relevant source of information.

C. Information Analysis and Evaluation

The following frame work will provide the basis for understanding the potential for a release at a facility:

1. Investigate waste generating processes.

2. Identify SWMUs and other sources of concern.

The overall evaluation of a facility's release potential should be addressed utilizing the five following categories:

1. Unit Characteristics
2. Waste Characteristics
3. Pollutant/Contaminant Migration Pathways
4. Evidence of Release
5. Exposure Potential

The result of this effort should provide the reviewer with a knowledge of significant data gaps and to help focus the visual site inspection.

D. Documentation

The suggested report outline is included in Appendix A.

VI. VISUAL SITE INSPECTION

The primary accomplishment during the VSI will be to (1) visually inspect the entire facility for evidence of releases and identify other areas of concern; (2) confirm the existence of all SWMUs; (3) filling in data gaps, as appropriate; and (4) focus recommendations for sampling visit, need for interim measures, tentative SOW for RFI or that no further action is required.

During the VSI, the investigator will:

° make visual observations around the entire facility (the VSI should not be limited to location previously identified as SWMUs or regulated units);

° identify on a facility map all areas of concern;

° document all observations in a field logbook;

° take photographs of all SWMUs, potential releases, and other locations of interest; and

° monitor for vapor emissions where appropriate to protect the investigator's safety.

Recommendations resulting from the VSI should include, but are not limited to:

1. sampling visit (prepare or revise draft Sampling Plan)
2. need for interim measures
3. need for remedial investigation
4. need for no further action

VII. SAMPLING VISIT

Two primary purposes of the SV will be to fill in data gaps previously identified during PR and for VSI and to determine whether any releases identified warrant further investigation.

The extent of a SV at a facility will be dependent upon the amount and quality of information gathered in the PR and SVI. The scope of a SV will be limited. This approach will provide the investigator with adequate data to determine the existence of pollutant/contaminant release.

The investigator will need to include, in the Sampling Plan, the following segments:

1. Sampling Location Map
2. Community Relations Plan
3. Health and Safety Plan
4. QA/QC Plan
5. Sampling Methodologies
6. Analytic Protocols

During the actual sampling visit, a detailed logbook of all activities, field conditions, sampling activities, etc.

must be maintained. Provision for proper sample collection, provisions for proper chain of custody, sample preservation of shipment to laboratory contractor, and appropriate decontamination/demobilization. Provisions should be made for proper disposal of non-reusable equipment, clothing contaminated rinse solutions (i.e. for transport and eventual off-site or on-site disposal).

VIII. FINAL REPORT

The final report will serve to amend the Interim Report in specific areas regarding evidence/potential of environmental releases at the facility. The narrative text should be modified where previously inconclusive information needs to be substituted for definitive documentation regarding the existence/presence or release of contaminants. Environmental data shall be summarized and tabulated where appropriate in the text to support observations and conclusions. A complete copy of all sampling/analysis data (including QA/QC documentation) must be included in the Appendix portion of the report.

APPENDIX A

INTERIM REPORT OUTLINE

1. Facility Description

   Site Location (include GEYES locus map and site plan)
   Environmental Setting
   Surface water, ground water, wetlands, land use, etc.
   Geology & hydrogeology of site

2. Facility Operations

   A. Current operations
      Raw material, products, wastes, generated (location, quantities)
      Current waste disposal practices
      NOTE: The use of schematics and facility site plans would be helpful

   B. Historic Operations
      Facility history
      Historic operations - materials, products, wastes generated
      historic waste management practices.

3. Solid Waste Management Units

   Identification
   Location, size, dates of operation
   Quantities and types of waste handled
   Documented releases to environmental media

4. Other Areas of Concern

   Potential/actual releases from regulated units and/or other uncontrolled waste areas at the facility.

5. Environmental Information Summary

   Pollutant/contaminant migration pathways
   Evidence of Release
   Potential for Release
   Target Popluations
   Comparison of release to known public health standards and/or guidelines.

6. Conclusions/Recommendations

   A. Summary of findings regarding likelihood and/or potential for release of pollutants/contaminants to environment.

B. Assess need for interim corrective action measures.

C. Need for additional information or environmental data.

D. Preparation of Sampling Plan.

E. Recommendations for Remedial Investigation (i.e., scope and estimated cost).

CIBA-GEIGY

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The initial information meeting can be scheduled ASAP.

Sources to be discussed at the initial information meeting are:

- RCRA Permit Application
- Facility SWMU response
- RCRA inspection reports
- Draft PA/SI document
- RCRA waste manifests
- State/EPA files
- State/local task forces
- Local citizen group
- NPDES files
- Aerial photographs
- NPDES inspections
- Municipal/county/city health agencies
- College/university studies
- U. S. G. S.